

REMARKS/ARGUMENTS

Claims 1, 4-9 and 21 remain pending in this application. Claims 2 and 3 have been canceled without prejudice or disclaimer. New claim 21 has been added.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and safe receipt of the priority document.

35 U.S.C. §103

Claims 1-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Teraslinna (U.S. Patent No. 5,812,525) in view of Kalkunte et al (U.S. Patent No. 6,470,016). These rejections are traversed as follows.

The claims have been amended to recite that it is judged or determined whether an inputted packet corresponds to a specific type of packets that are transmitted in preference to other packets, according to a value in the header of the packet. When the specific type of packets do not violate the contract bandwidth, if a packet whose value in its header does not correspond to the specific type of packet is inputted, the packet is nonetheless transmitted after being converted to have this specific value in its header. In other words, a non-priority packet is converted to a priority packet and is transmitted as if it was a priority packet.

This provides the significant advantage that non-priority packets can be transmitted as priority packets and use a portion of the contract bandwidth of the priority packets. This enables network resources to be used effectively (see specification, page 36, line 22 to page 38, line 11). Furthermore, by converting the non-priority packet to a priority packet having a specific value (indicating priority) in its header, the packet can be preferentially transferred over the network as a priority packet.

As admitted by the Examiner, "Teraslinna does not explicitly state that the unused contract bandwidth of a specific type of packet is used for packets not of that specific type" (see Office Action, page 3, lines 10-11). As disclosed at column 5, lines 8-17, Teraslinna issues a penalty for violating the bandwidth contract to a packet in such a manner that the violating packet is marked with a low priority for loss so that a node on the transmission route in the network can discard the marked packet if congestion occurs. Therefore, Teraslinna discloses demoting the priority of an inputted packet that has violated contract bandwidth so as to discard the violating packet upon congestion.

On the other hand, the present invention seeks to transfer an inputted packet to its destination safely by upgrading the priority of the packet. Therefore, the trigger that relates to changing priority does not have any relation to the violation of a traffic contract of the input packet. As such, Teraslinna disclosure is substantially different

from the present invention and one of ordinary skill in the art would not be motivated to modify Teraslinna to arrive at the presently claimed invention.

The deficiencies in Teraslinna are not overcome by the newly cited reference to Kalkunte et al. The Examiner relies upon column 15, lines 13-24 of Kalkunte et al. However, this paragraph merely discloses an adaptive weighted round robin scheduling method which repeats bandwidth cycles for processing frame cues in a round-robin fashion from the highest priority cue in a state that none of the cues has any remaining bandwidth segments for a bandwidth cycle. The portion in Kalkunte et al cited by the Examiner is repeated as follows:

The adaptive weighted round robin scheduling method determines that a bandwidth cycle is complete by determining that none of the cues has any remaining segments for the bandwidth cycle, upon which the adaptive round robin scheduling method begins another bandwidth cycle by repeating the steps of allocating, for each cue, the predetermined number of bandwidth segments for a bandwidth cycle and the predetermined number of transmission opportunities for a round robin cycle, and processing the cues consecutively in a round-robin fashion, beginning with the highest priority cue (Col 15, lines 13-24).

As clearly disclosed in the passage quoted above, packets (or frames) are transmitted in order of priority by selecting them in a round robin fashion. However, the priority class in header of each of the packets remains unchanged, unlike the presently claimed invention. According to Kalkunte et al's method, a low priority packet, transmitted using the remaining bandwidth of packets with higher priority, is

not guaranteed to be transmitted to its destination without any trouble since this packet is always a low priority packet at every node.

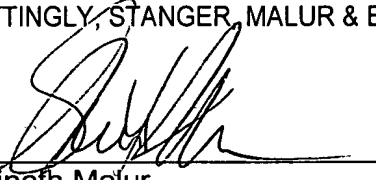
New claim 21 recites the features of the present invention set forth above and can be distinguished over the attempted combination of Teraslinna and Kalkunte et al for the reasons set forth above. As such, it is submitted that all of the pending claims patentably define the present invention over the cited art.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

By 
Shrinath Malur
Reg. No. 34,663
(703) 684-1120